

PROCEEDINGS OF THE NEW YORK ENTOMOLOGICAL SOCIETY

MEETING OF APRIL 4, 1961

President Schmitt called the meeting to order in Room 129, A.M.N.H., at 8:10 P.M. with 16 members and 24 guests present. The minutes of the previous meeting were accepted as read. The Rev. Gerald A. Green of St. John's Seminary and College, Yonkers, N.Y., was nominated for membership.

Dr. L. Marks introduced the speaker of the evening, Prof. Daniel Ludwig. Subsequent to being granted the doctorate from the Univ. of Pennsylvania in Insect Physiology, Dr. Ludwig stayed but briefly at the University of Oklahoma before settling down for 20 years of research on the physiology of the Japanese beetle at New York University. Fordham University is now his scholastic headquarters. Dr. Ludwig reviewed previous studies on parental age in vertebrates and insects and continued with a discussion of work he and his students are doing with the mealworm *Tenebrio molitor*. (An abstract follows.)

A question and answer period followed and the meeting was adjourned at 9:45 P.M.

RAYMOND BRUSH, SEC.

Some Biological Effects of Parental Age

Eggs were collected at 2 week intervals throughout the egg laying period from adult mealworms and maintained at 30°, 25° and 20° C. Eggs and larvae were maintained at the same temperature as was used for the parent beetles. Parental age had no effects on the duration of the egg stage or on the weights of the eggs or newly hatched larvae. At each temperature the percentage of eggs which hatched decreased with an increase in parental age from approximately 90 for those laid during the first 2 months to about 50 for those laid 4 months after emergence. At 25° and 20° C., an increase in parental age resulted in a decrease in the duration of the larval stage, the number of larval molts and the duration of adult life. These effects on the larval stage were not evident until the parents had aged 1 month or longer; and on adult life until 9 weeks following emergence. Similar results were obtained with offspring from a single pair of beetles.

A physiological comparison of adult beetles obtained from young parents (less than 3 weeks following emergence) and from old parents (more than 6 weeks following emergence) showed no significant differences in the rates of oxygen consumption or on the percentages of total nitrogen. The activity of cytochrome oxidase in adults obtained from young parents was high during 6 weeks following emergence; whereas in those from old parents, the high rate persisted for only 2 weeks of adult life. The activity of acid phosphatase was also significantly higher in those from old parents after the first 6 weeks of adult life.

DANIEL LUDWIG

MEETING OF APRIL 18, 1961

President Schmitt called the meeting to order in Room 129, A.M.N.H., at 8:00 P.M.; 27 members and 7 guests were present. The minutes of the previous meeting were accepted as read by the Secretary. Rev. Gerald Green was unanimously elected to membership. Dr. Treat proposed Dr. Elizabeth Belton, a guest investigator at Columbia University, for membership. Dr. A. B. Klots introduced Mr. A. Sibatani, a visitor from Japan, presently working at the Rockefeller Institute. Dr. Treat reported the accomplishments of Donald Bain, a junior member of the Society, who for the second year has won the Grand Prize at the Dumont, N.J., Science Show.

Dr. A. B. Klots then introduced the speaker of the evening, Mr. Sidney Hessel. Mr. Hessel, a well-known Lepidopterist associated with the Peabody Museum at Yale University, spoke of "The White Highlands of Africa." He described the planning of the trip and oriented us with this Ethiopian region by means of maps. Unique baits and techniques used to capture Lepidoptera were explained. The party travelled unarmed in autos with excellent photographic equipment. Many beautiful color slides of the flora and fauna were shown. He also showed and described some interesting mementoes of his journey. This gave us a real feeling for the country and its people. Slides of the butterflies caught were projected together with a detailed review of the various *Papilio dardanus* netted.

The meeting was reluctantly adjourned at 10:00 P.M.

RAYMOND BRUSH, SEC.

MINUTES OF MAY 2, 1961

President Schmitt called the meeting to order at 8:10 P.M. in Room 129 of the A.M.N.H. He welcomed 27 members and 14 guests. The minutes of the previous meeting were accepted as read. Dr. Elizabeth Belton was unanimously elected to membership in the Society, and Dr. Ludwig proposed Dr. Joseph V. Pearincott, a former student of his, for membership.

Dr. Schmitt outlined the evening's program. Each of eight students would give a ten minute talk on their respective special subjects. He commented on this short time allotted, and pointed out that it was necessary because of our 10:00 P.M. adjournment time. The speakers and the titles of their talks follow:

Rev. J. R. Owens-Howard, S. J.—(introduced by Dr. Forbes)

"Some studies of the reproductive systems of the seventeen-year cicada."

Mr. Louis M. Vasvary—(introduced by Dr. Schmitt)

"Some aspects of the nervous system of the male of the annual cicada."

Sister M. Matthew—(introduced by Dr. Ludwig)

"Changes in glycogen during the metamorphosis of the housefly."

Mr. C. D. Anthony—(introduced by Dr. Marks)

"Variation in the male genitalia of *Battus priamus*, a subspecies in the Papuan sub-region."

Miss Jean Adams—(introduced by Dr. Schmitt)

"The location and histology of the contact chemoreceptors of *Stomoxys calcitrans*."

Mr. Jeffrey Freeman—(introduced by Dr. Schmitt)

"Observations on the seasonal distribution, biology and behavior of some species of horse flies and deer flies in Morris County, N.J."

Miss Barbara Johnson—(introduced by Dr. Klots)

"A Study of the Mite *Cyrtodrolaclaps incisus* Evans (Acarina, Veigiidae)."

Mr. C. Robert Jones—(introduced by Dr. Ludwig)

"Changes in enzyme activity of isolated tissues during metamorphosis of the mealworm, *Tenebrio molitor*."

The talks were highly informative and evidence of the fine research being done by graduate students of entomology.

The meeting was enjoyed by all and was adjourned at 10:00 P.M.

RAYMOND BRUSH, SEC.

MEETING OF MAY 16, 1961

The meeting was called to order by President Schmitt at 8:05 P.M. in Room 129, A.M.N.H. Twenty members and 2 guests were present. The minutes of the previous meeting were accepted with the correction that Miss Johnson, a speaker at the previous meeting, is an undergraduate student while all the others are graduates. Dr. Schmitt made two proposals for membership: Mr. Jacob Fisher of Upper Montclair, N.J., and Mr. Howard LaMell of New Milford, N.J. Since this was the last meeting of the season, the By-Laws were suspended, and two new members were unanimously elected. It was announced that the legal papers were ready concerning Mr. Schwarz's bequest to the Society.

President Schmitt then called on a volunteer to begin the evening's plans, techniques, gadgets for collecting insects. Mr. Heineman started the evening with an amusing account of his experience in catching 3 Owl's-Head moths in the airport on Trinidad Island (*Ed. Note*—this account was published in the *Journal*, 70: 61-63, 1962). Mrs. Heineman then spoke of her botanic experiences during her various trips to Jamaica. She reported finding the wood rose, *Ipomea tuberosa* Linn., a new flower; *Acrosynanthus jamaciensis*, a new record; *Euphorbia pumice*, which had not been reported since 1688; and the rare *Gynura aurantiaca*, a purple composite.

Dr. Treat described his "anti-moth traps," which look like "privies for little people." These were devised to record the reaction of moths to electronically generated frequencies of 4 or 5 to 35 or 40 kilocycles. The effects of this "electronic bat" will be of interest since bats chirp up to 100 kilocycles. This research is in collaboration with Dr. Roeder of Tufts University. Donald Bain played a tape recording of the stridulations of a passalid beetle collected from decaying logs in Oradell, N.J., December 1959. Mr. Dix demonstrated collecting insects with a single

reflex, 35 mm camera and discussed some of the problems involved. Dr. Edwin Way Teale described his observations of an opossum and a loon on his farm with a beagle and a cat as his companions. Mr. Thomas Bast, graduate student at Rutgers, showed color slides and described his automatic interval mosquito traps for studying mosquito flight habits at 2 hour intervals at 6 and 45 ft. above the ground. Dr. Creighton told how his ant collecting began when he was searching for fossil insects with dynamite.

President Schmitt announced that Dr. Creighton's retirement from City College next month will necessitate a change in the editorship of the *Journal*. Dr. Creighton's past services were acknowledged with regret that he is leaving the New York area.

The meeting adjourned at 9:50 P.M.

PETER DIX, SEC., PRO TEM.